

SHEET 1 OF 2

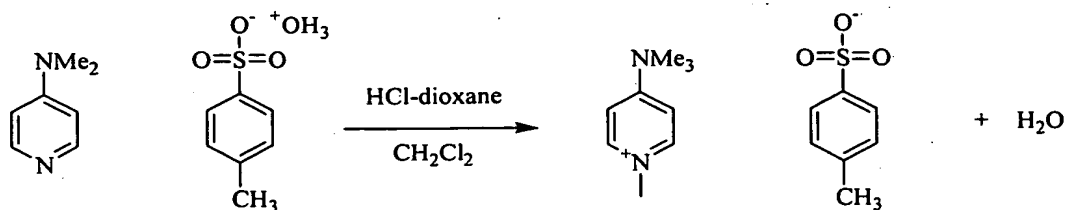


Figure 1: Synthesis of 4-(*N,N*-dimethylamino)pyridinium 4-toluenesulfonate

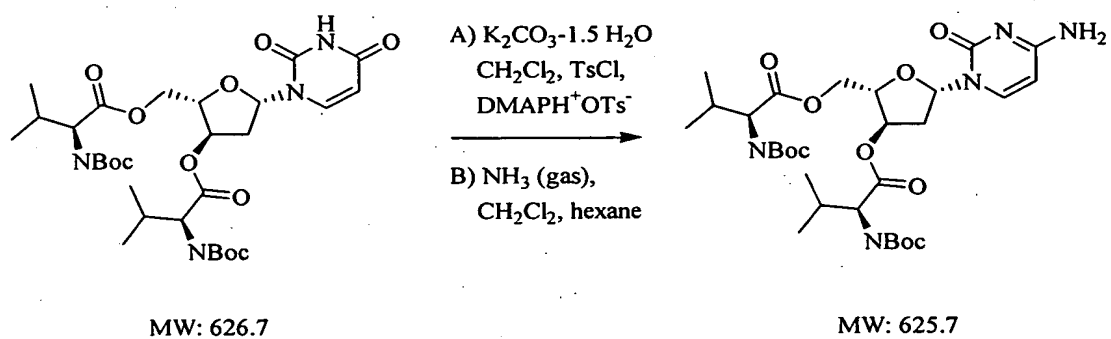
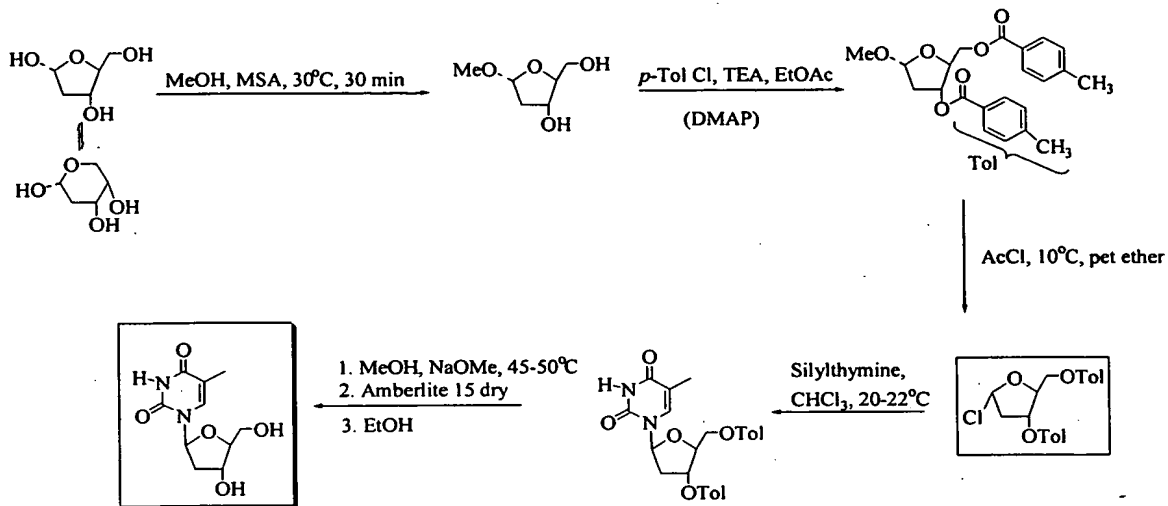
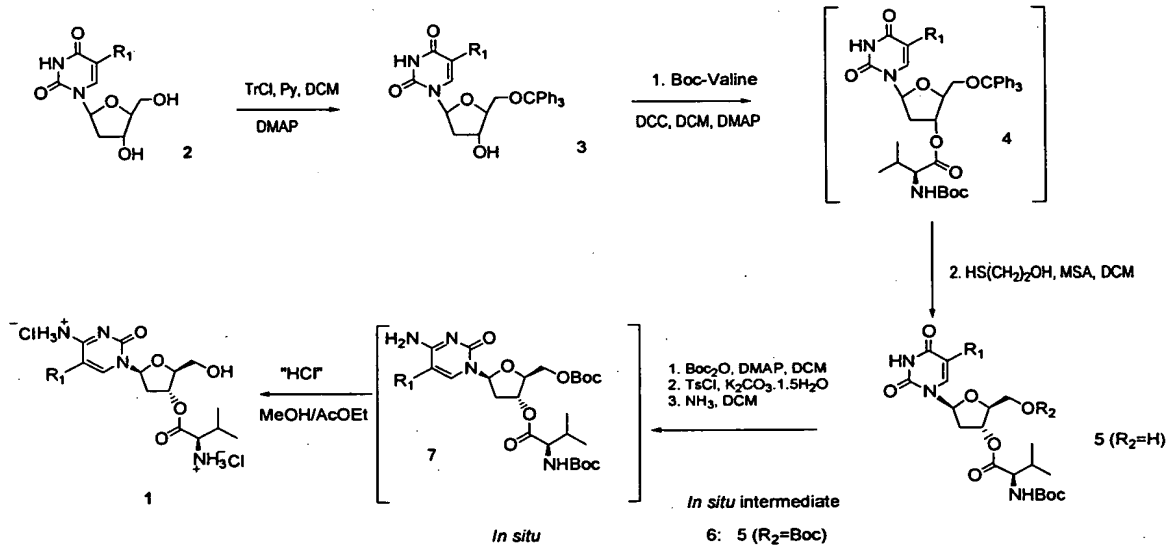


Figure 2: Synthesis of 3',5'-di-(Boc-L-valinyl)-L-2'-deoxycytidine

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**Figure 3:** Synthesis of 1- $\alpha$ -chloro-3,5-di-O-toluoyl-2-deoxy-L-ribose and coupling with silylated thymine.



**Figure 4: Synthesis of 3'-O-L-valyl-2'-deoxy- $\beta$ -L-cytidine from 2'-deoxy- $\beta$ -L-uridine**